WHAT IS CLAIMED IS:

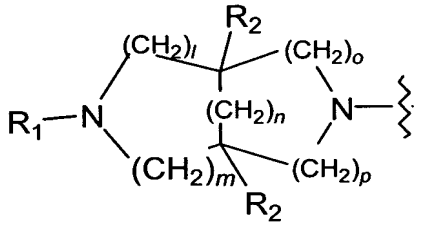
1. A compound of the formula (I):

$$Z\text{-}Ar_1\text{-}Ar_2$$

(I)

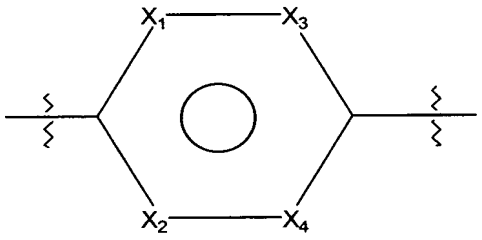
or a pharmaceutically acceptable salt, ester, amide, or prodrug thereof, wherein:

Z is a diazabicyclic amine of the formula:



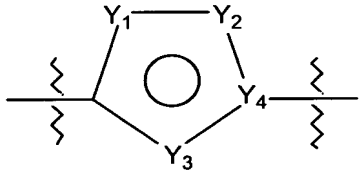
(II)

Ar_1 is a 5- or 6-membered aromatic ring of the formula:



(a)

or



(b)

Ar_2 is selected from the group consisting of an unsubstituted or substituted 5- or 6-membered heteroaryl ring; unsubstituted or substituted bicyclic heteroaryl ring; 3,4-(methylenedioxy)phenyl; and phenyl substituted with 0, 1, 2, or 3 substituents in the meta- or para-positions; provided that when Y_1 is O or S, Y_2 is N, Y_3 is $-CR_3$ and R_3 is hydrogen, and Y_4 is C, then Ar_2 is not 5-tetrazolyl;

X_1, X_2, X_3, and X_4 are each independently selected from the group consisting of N and $-CR_3$, provided that R_3 is not hydrogen at least in one occurrence when X_1, X_2, X_3, and X_4 are all $-CR_3$;

Y_1, Y_2, and Y_3 are each independently selected from the group consisting of N, O, S, and -CR_3;

Y_4 is C or N, provided that when Y_4 is C at least one of Y_1, Y_2, and Y_3, is other than -CR_3;

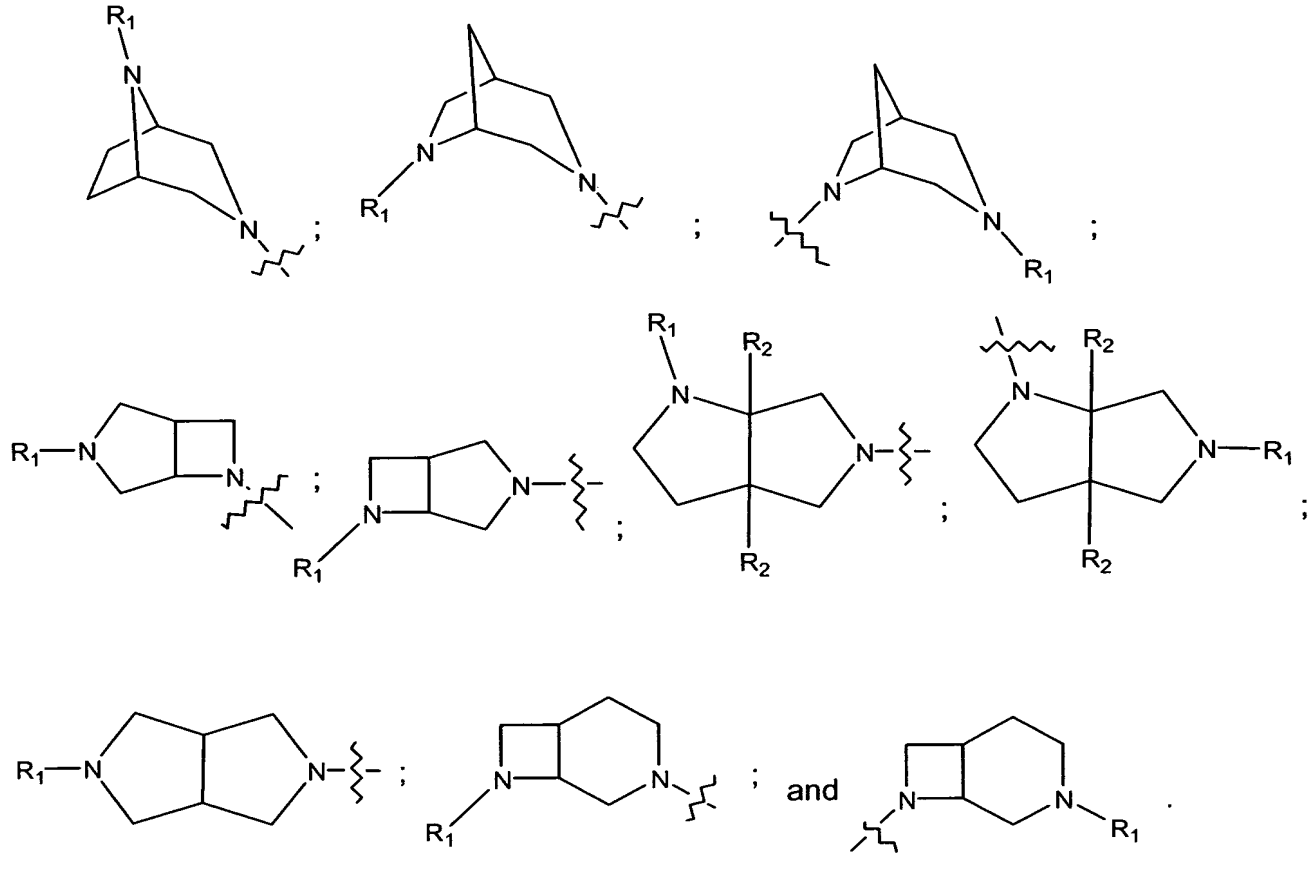
l, *m*, *n*, *o*, and *p* are each independently selected from 0, 1, or 2, provided that the sum total of *l*, *m*, *n*, *o*, and *p* is 3, 4, or 5;

R_1 is independently selected from the group consisting of hydrogen, alkyl, and alkoxycarbonyl;

R_2 at each occurrence is independently selected from the group consisting of hydrogen and alkyl; and

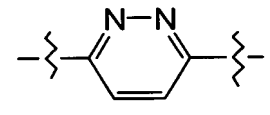
R_3 at each occurrence is independently selected from the group consisting of hydrogen and alkyl.

2. The compound of claim 1, wherein Z is selected from the group consisting of:



3. The compound of claim 1, wherein Ar_1 is selected from the group consisting of isoxazolyl, oxadiazolyl, pyrazolyl, pyridazinyl, pyridinyl, pyrimidinyl, thiadiazolyl, thiazolyl, thienyl, and phenyl substituted with 0 or 1 alkoxy substitutent.

4. The compound of claim 1, wherein Ar_1 is selected from the group consisting of: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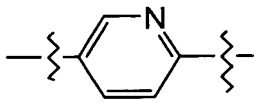
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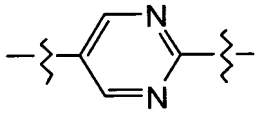
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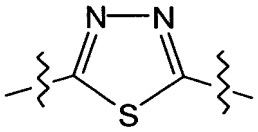
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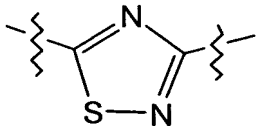
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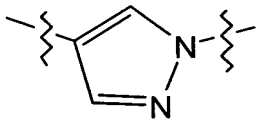
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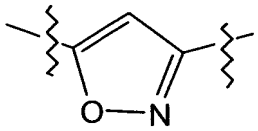
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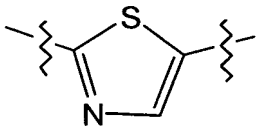
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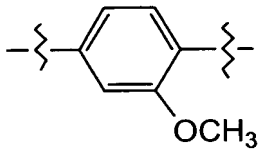
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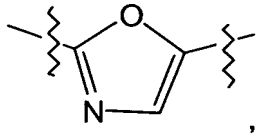
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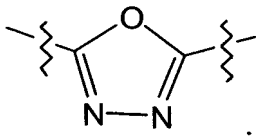
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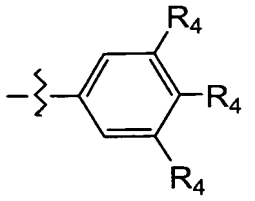
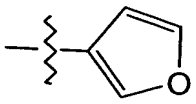
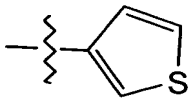
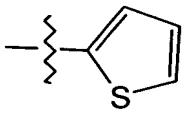
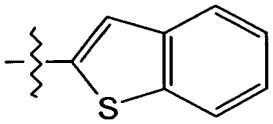
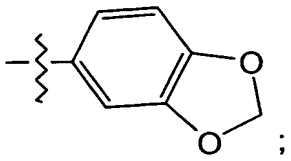
5. The compound of claim 1, wherein Ar_2 is selected from the group consisting of furyl; thienyl; pyridyl; benzothiophenyl; 3,4-(methylenedioxy)phenyl; and phenyl substituted with 0, 1, or 2 substituents selected from the group consisting of alkoxy, alkoxycarbonyl, alkyl, alkylcarbonyl, carboxy, halogen, haloalkyl, $-NR_AR_B$, (NR_AR_B)alkyl, (NR_AR_B)alkoxy, and phenyl.

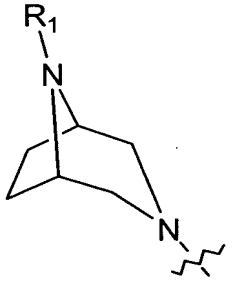
6. The compound of claim 1, wherein Ar_2 is selected from the group consisting of:

wherein R_4 at each occurrence is independently selected from the group consisting of hydrogen, alkoxy, alkoxycarbonyl, alkyl, alkylcarbonyl, carboxy, halogen, haloalkyl, $-NR_AR_B$, (NR_AR_B)alkyl, (NR_AR_B)alkoxy, and phenyl.

7. The compound of claim 6, wherein Ar_2 is selected from the group consisting of phenyl, *m*-methylphenyl, *p*-methoxyphenyl, *m*-trifluoromethylphenyl, and *m*-aminophenyl.

8. The compound of claim 1, wherein Z is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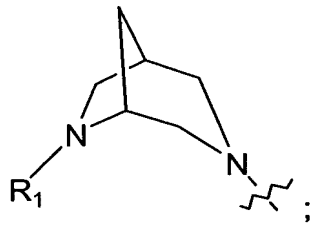
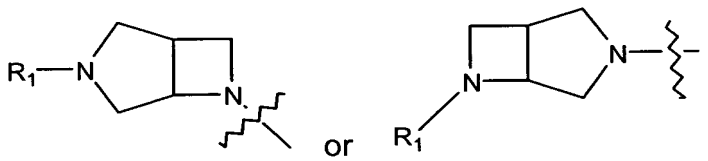


Ar_1 is pyridazinyl; and

Ar_2 is as defined in claim 1.

9. The compound of claim 8, wherein Ar_2 is phenyl or phenyl substituted with a substituent selected from the group consisting of alkyl, alkoxy, haloalkyl, $-NR_AR_B$, and phenyl.

10. The compound of claim 1, wherein Z is

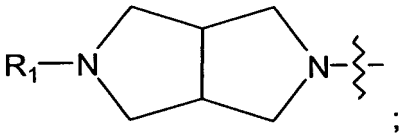


Ar_1 is pyridazinyl or pyridinyl; and

Ar_2 is as defined in claim 1.

11. The compound of claim 10, wherein Ar_2 is 3,4-(methylenedioxy)phenyl, phenyl, or phenyl substituted with 0, 1, or 2 substituents selected from the group consisting of alkyl and alkylcarbonyl.

12. The compound of claim 1, wherein Z is



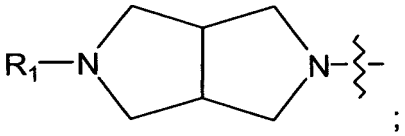
;

Ar_1 is pyridazinyl; and

Ar_2 is as defined in claim 1.

13. The compound of claim 12, wherein Ar_2 is phenyl or phenyl substituted with a substituent selected from the group consisting of alkyl, alkoxy, haloalkyl, $-NR_AR_B$, and phenyl.

14. The compound of claim 1, wherein Z is



;

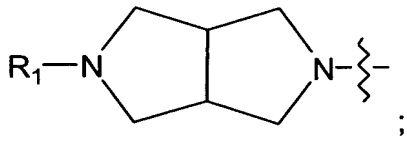
Ar_1 is pyridinyl; and

Ar_2 is defined in claim 1.

15. The compound of claim 14, wherein Ar_2 is heteroaryl or bicyclic heteroaryl, provided that Ar_2 is not 1-pyrrolyl or 1-indolyl.

16. The compound of claim 14, wherein Ar_2 is furyl, benzothiophenyl, phenyl, or phenyl substituted with a substituent selected from the group consisting of alkyl, alkoxy, haloalkyl, $-NR_AR_B$, and phenyl.

17. The compound of claim 1, wherein Z is



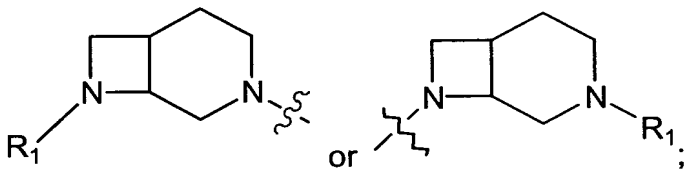
;

Ar_1 is either isoxazolyl, oxadiazolyl, pyrazolyl, pyrimidinyl, thiadiazolyl, or thiazolyl; and

Ar_2 is as defined in claim 1.

18. The compound of claim 17, wherein Ar_2 is phenyl or phenyl substituted with a substituent selected from the group consisting of alkyl, alkoxy, haloalkyl, $-NR_AR_B$, and phenyl.

19. The compound of claim 1, wherein Z is



or

;

Ar_1 is pyridazinyl, pyrimidinyl, or thiazolyl; and

Ar_2 is as defined in claim 1.

20. The compound of claim 19, wherein Ar_2 is phenyl, phenyl substituted with alkylcarbonyl, or 3,4-(methylenedioxy)phenyl.

21. The compound of claim 1, wherein *n* is 0.

22. The compound of claim 1, or a pharmaceutically acceptable salt, ester, amide, or prodrug thereof, selected from the group consisting of:
3-(6-phenyl-pyridazin-3-yl)-3,8-diaza-bicyclo[3.2.1]octane;
8-methyl-3-(6-phenyl-pyridazin-3-yl)-3,8-diaza-bicyclo[3.2.1]octane;

6-methyl-3-(6-phenyl-pyridazin-3-yl)-3,6-diaza-bicyclo[3.2.1]octane;
3-(6-phenyl-pyridazin-3-yl)-3,8-diaza-bicyclo[4.2.0]octane;
8-methyl-3-(6-phenyl-pyridazin-3-yl)-3,8-diaza-bicyclo[4.2.0]octane;
2-(6-phenyl-pyridazin-3-yl)-octahydro-pyrrolo[3,4-c]pyrrole;
2-methyl-5-(6-phenyl-pyridazin-3-yl)-octahydro-pyrrolo[3,4-c]pyrrole;
2-(6-m-tolyl-pyridazin-3-yl)-octahydro-pyrrolo[3,4-c]pyrrole;
2-methyl-5-(6-m-tolyl-pyridazin-3-yl)-octahydro-pyrrolo[3,4-c]pyrrole;
2-[6-(4-methoxy-phenyl)-pyridazin-3-yl]-octahydro-pyrrolo[3,4-c]pyrrole;
2-(6-biphenyl-3-yl-pyridin-3-yl)-octahydro-pyrrolo[3,4-c]pyrrole;
2-(6-biphenyl-3-yl-pyridin-3-yl)-5-methyl-octahydro-pyrrolo[3,4-c]pyrrole;
2-[6-(3-trifluoromethyl-phenyl)-pyridin-3-yl]-octahydro-pyrrolo[3,4-c]pyrrole;
2-methyl-5-[6-(3-trifluoromethyl-phenyl)-pyridin-3-yl]-octahydro-pyrrolo[3,4-c]pyrrole;
3-[5-(hexahydro-pyrrolo[3,4-c]pyrrol-2-yl)-pyridin-2-yl]-phenylamine;
5-(6-furan-3-yl-pyridin-3-yl)-hexahydro-pyrrolo[3,4-c]pyrrole;
2-(6-furan-3-yl-pyridin-3-yl)-5-methyl-octahydro-pyrrolo[3,4-c]pyrrole;
2-(6-benzo[b]thiophen-2-yl-pyridin-3-yl)-octahydro-pyrrolo[3,4-c]pyrrole;
2-(6-benzo[b]thiophen-2-yl-pyridin-3-yl)-5-methyl-octahydro-pyrrolo[3,4-c]pyrrole;
2-(5-phenyl-pyridin-2-yl)-octahydro-pyrrolo[3,4-c]pyrrole;
2-methyl-5-(5-phenyl-pyridin-2-yl)-octahydro-pyrrolo[3,4-c]pyrrole;
2-(2-phenyl-pyrimidin-5-yl)-octahydro-pyrrolo[3,4-c]pyrrole;
2-methyl-5-(2-phenyl-pyrimidin-5-yl)-octahydro-pyrrolo[3,4-c]pyrrole;
diethyl-(2-{3-[6-(hexahydro-pyrrolo[3,4-c]pyrrol-2-yl)-pyridazin-3-yl]-phenoxy}-ethyl)-amine;
diethyl-(2-{3-[6-(5-methyl-hexahydro-pyrrolo[3,4-c]pyrrol-2-yl)-pyridazin-3-yl]-phenoxy}-ethyl)-amine;
2-(5-phenyl-[1,3,4]thiadiazol-2-yl)-octahydro-pyrrolo[3,4-c]pyrrole;
2-(3-phenyl-[1,2,4]thiadiazol-5-yl)-octahydro-pyrrolo[3,4-c]pyrrole;
2-methyl-5-(3-phenyl-[1,2,4]thiadiazol-5-yl)-octahydro-pyrrolo[3,4-c]pyrrole;
2-(1-phenyl-1H-pyrazol-4-yl)-octahydro-pyrrolo[3,4-c]pyrrole;
2-(2-methoxy-biphenyl-4-yl)-octahydro-pyrrolo[3,4-c]pyrrole;
2-(2-methoxy-biphenyl-4-yl)-5-methyl-octahydro-pyrrolo[3,4-c]pyrrole;
2-methyl-5-(3-phenyl-isoxazol-5-yl)-octahydro-pyrrolo[3,4-c]pyrrole;

(1S, 5S)-3-(6-phenyl-pyridazin-3-yl)-3,6-diaza-bicyclo[3.2.0]heptane;
(1S, 5S)-6-methyl-3-(6-phenyl-pyridazin-3-yl)-3,6-diaza-bicyclo[3.2.0]heptane;
(1R, 5S)-6-(6-phenyl-pyridazin-3-yl)-3,6-diaza-bicyclo[3.2.0]heptane;
(1R, 5S)-3-methyl-6-(6-phenyl-pyridazin-3-yl)-3,6-diaza-bicyclo[3.2.0]heptane;
(1R, 5R)-3-(6-phenyl-pyridazin-3-yl)-3,6-diaza-bicyclo[3.2.0]heptane;
(1R, 5R)-6-methyl-3-(6-phenyl-pyridazin-3-yl)-3,6-diaza-bicyclo[3.2.0]heptane;
(1R, 5R)-3-(6-benzo[1,3]dioxol-5-yl-pyridazin-3-yl)-3,6-diaza-bicyclo[3.2.0]heptane;
(1R, 5R)-3-(6-benzo[1,3]dioxol-5-yl-pyridazin-3-yl)-6-methyl-3,6-diaza-bicyclo[3.2.0]heptane;
(1R, 5R)-1-{4-[5-(3,6-diaza-bicyclo[3.2.0]hept-3-yl)-pyridin-2-yl]-phenyl}-ethanone;
(1R, 5R)-1-{4-[5-(6-methyl-3,6-diaza-bicyclo[3.2.0]hept-3-yl)-pyridin-2-yl]-phenyl}-ethanone;
6a-methyl-5-(6-m-tolyl-pyridin-3-yl)-octahydro-pyrrolo[3,4-b]pyrrole;
2-(5-phenyl-thiazol-2-yl)-octahydro-pyrrolo[3,4-c]pyrrole; and
2-methyl-5-(5-phenyl-thiazol-2-yl)-octahydro-pyrrolo[3,4-c]pyrrole.

23. A pharmaceutical composition comprising a therapeutically effective amount of a compound of claim 1 in combination with a pharmaceutically acceptable carrier.

24. A method of selectively modulating the effects of $\alpha 7$ nicotinic acetylcholine receptors in a mammal comprising administering an effective amount of a compound of claim 1.

25. A method for treating a condition or disorder modulated by an $\alpha 7$ nicotinic acetylcholine receptor comprising the step of administering a compound of claim 1.

26. The method according to claim 25, wherein the condition or disorder is selected from the group consisting of attention deficit disorder, attention deficit hyperactivity disorder (ADHD), Alzheimer's disease (AD), mild cognitive

impairment, senile dementia, AIDS dementia, Pick's Disease, dementia associated with Lewy bodies, and dementia associated with Down's syndrome.

27. The method according to claim 25, wherein the condition or disorder is selected from the group consisting of a cognitive disorder, neurodegeneration, and schizophrenia.

28. The method according to claim 25, further comprising administering a compound of claim 1 in combination with an atypical antipsychotic.